

## REMARKS

Claims 1 to 4 appear in this application for the Examiner's review and consideration. Claim 5 was canceled without prejudice by a previous Amendment. The claims are fully supported by the specification and claims as originally filed. Therefore, there is no issue of new matter.

Applicants acknowledge with appreciation the courtesies shown to their representative, Alan P. Force (Reg. No. 39,673), by Examiner Jie Yang and Supervisory Examiner Roy King in a telephone interview on October 29, 2010. The arguments set forth herein are in accordance with that interview.

The Office Action objected to claims 2 to 4 under 37 C.F.R. 1.75(c), as allegedly being of improper dependent form for failing to further limit the subject matter of a previous claim. In particular, the Office Action states that all of the limitations of claims 2 to 4 are included in independent claim 1. Therefore, the Office Action states that the Applicants are required to cancel or amend those claims to place the claims in proper dependent form, or rewrite claims 2 to 4 in independent form.

In response, Applicants submit that independent claim 1 was amended in the Amendment dated May 24, 2010, to change the transition from "consisting essentially of" to "consisting of," thereby excluding all elements and steps not recited in the claims. Claim 1 was also amended to recite that the presently claimed steel plate **optionally** contained:

at least one of magnesium in an amount of 0.0003 to 0.0050 weight percent, rare earth metals in an amount of 0.001 to 0.030 weight percent, and at least 100/mm<sup>2</sup> of oxide particles containing oxygen in an amount of 0.0010 to 0.0050 weight percent, the particles having an equivalent circle diameter of 0.005 to 0.5  $\mu$ m, and

that the presently claimed steel plate also **optionally** contained:

at least one of boron in an amount of 0.0005 to 0.0050 weight percent, chromium in an amount of 0.1 to 0.5 weight percent, molybdenum in an amount of 0.01 to 0.5 weight percent, vanadium in an amount of 0.005 to 0.10 weight percent, and copper in an amount of 0.1 to 1.0 weight percent.

Therefore, claim 1 clearly recites that the magnesium, rare earth metals, oxide particles, boron, chromium, molybdenum, vanadium, and copper are optional elements in the presently claimed steel plate, and, thus, need not be present in the steel plate of the presently claimed invention.

In contrast, claim 2 recites that one or more of the magnesium, rare earth metals, and oxide particles must be present in the presently claimed steel plate in the amounts recited in the claims, and claims 3 and 4 recite that one or more of the boron, chromium, molybdenum, vanadium, and copper must be present in the presently claimed steel plate in the amounts recited in the claims.

Therefore, as claim 1 recites that the optional elements are optional, and, thus, may be present in the presently claimed steel plate in the amounts recited in the claims, and the dependent claims recite that one or more of the optional elements must be present in the presently claimed steel plate in the amounts recited in the claims, the dependent claims further limit claim 1. All of the limitations of claims 2 to 4 are not included in claim 1. Accordingly, it is respectfully requested that the Examiner withdraw the objection to claims 2 to 4.

Claims 1 to 4 stand rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over Japanese Application Publication No. JP 2003-313628 (JP ‘628) for the reasons set forth on pages 3 to 6 of the Office Action.

In response, Applicants submit that, as noted above, claim 1 was amended in the Amendment dated May 24, 2010, to change the transition from “consisting essentially of” to “consisting of,” and deleting the recitations of calcium, Ca, from the claims. Therefore, Ca is excluded from the presently claimed steel plate.

In response to that Amendment, in the Response to Arguments section of the Office Action, the Office Action states that the effect of Ca is disclosed in the present specification in a range disclosed for Ca by JP ‘628, Table 1 of the present specification includes alloys with and without Ca, and Applicants have “not provided any evidence to show the criticality of excluding Ca from the alloy.”

Applicants first submit that it is well settled law that it is improper to read limitations from the specification into the claims. It is also well settled law that an applicant need not claim all that is disclosed in an application, and can claim specific embodiments of the invention disclosed in the specification without the need to provide any evidence to show the criticality of the exclusion of nonessential elements disclosed in the claims from disclosed embodiments that exclude those elements.

At page 13, lines 21 to 26, as cited in the Office Action, the present specification teaches:

Ca is added in an amount of 0.0003% or more, *if necessary*, in order to produce the Ca-based oxide particles acting as pinning grains necessary for suppressing the coarsening of the re-heated austenite grains. However, excess addition produces coarse inclusions, so 0.0050% was made the upper limit. (Emphasis added)

Therefore, the present specification teaches that Ca is an optional element that may be added during preparation of the presently claimed steel plate.

In addition, as stated in the Office Action, Table 1 of the present specification includes alloys of the invention that do not contain Ca, as well as alloys of the invention that do contain Ca. As the present claims recite that presently claimed steel plate comprises a balance of iron and unavoidable impurities, those skilled in the art will thus understand that specific embodiments of the presently claimed steel plate do not contain Ca other than as an unavoidable impurity.

Again, it is well settled law that Applicants need not claim all that is disclosed in the present specification. Instead, the present claims can be directed to a specific embodiment of the invention disclosed in the present specification. The specific embodiment recited in the claims is the embodiment in which Ca is absent other than as an unavoidable impurity. Therefore, any reference that discloses a steel containing Ca as a necessary element does not disclose or suggest the presently claimed steel plate, and provides no reason for one of ordinary skill in the art to make and/or use the presently claimed steel plate.

During the interview, the question arose as to whether JP '628 discloses that Ca is a necessary element in the disclosed steel. In particular, it was suggested that paragraphs [0033] and [0077] of JP '628 disclose that magnesium, Mg, or rare earth metals, REM, can be substituted for Ca. However, in paragraph [0033], JP '628 clearly discloses that Mg and/or REM can be used in addition to Ca, and, in paragraph [0077], JP '628 clearly discloses that Mg and REM assist in the "formation of the detailed oxide by Ca."

In addition, in paragraph [0072], JP '628 clearly discloses that a minimum of 0.0005 percent Ca is required in the disclosed steel.

Therefore, as discussed in the Amendment dated May 24, 2010, JP '628 discloses a steel product in which Ca is a necessary element. JP '628 discloses that the disclosed steel product must contain Ca in an amount of from 0.0005 to 0.0050 percent by weight. As JP

‘628 discloses a steel containing Ca as a necessary element, and not an unavoidable impurity, JP ‘638 does not disclose or suggest the presently claimed steel plate, and fails to provide any reason for one of ordinary skill in the art to make and/or use the presently claimed steel plate.

Therefore, as JP ‘628 fails to provide any reason for one of ordinary skill in the art to make and/or use the presently claimed steel plate, the present claims are not obvious over that reference. Accordingly, it is respectfully requested that the Examiner withdraw the rejection of claims 1 to 4 under 35 U.S.C. § 103(a) over JP ‘628.

Applicants thus submit that the entire application is now in condition for allowance, an early notice of which would be appreciated. Should the Examiner not agree with Applicants’ position, a further personal or telephonic interview is respectfully requested to discuss any remaining issues prior to the issuance of a further Office Action, and to expedite the allowance of the application.

No fee is believed to be due for the filing of this Amendment. Should any fees be due, however, please charge such fees to Deposit Account No. 11-0600.

Respectfully submitted,

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